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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/203,086	12/01/98	PHILLIPS	B 1554/1556 (US

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QWEST COMMUNICATIONS INTERNATIONAL INC  
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EXAMINER.

NGUYEN, S

ART UNIT

PAPER NUMBER

2664

DATE MAILED:

10/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

**Office Action Summary**

Application No.

09/203,086

Applicant(s)

PHILLIPS ET AL.

Examiner

Steven HD Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 December 1998.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☒ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Interview Summary***

1. The examiner calls Mr. Ernie Brooks, Reg 26260 to discuss the 112 second paragraph rejection and specification/claim objection. However, Mr. Ernie Brooks requests the examiner sending out the rejection.

### ***Drawings***

2. The drawing which filed on 12/1/1998 approved by the draftsperson under 37 CFR 1.84 or 1.152.

### ***Specification***

3. Page 7, lines 1-2, the applicant should change the recitation "receiver 42, decoder 44, buffer 46, encoder 48, and line driver 50" to "receiver 44, decoder 46, buffer 48, encoder 50, and line driver 52" so that the references are corresponded to figure 1.

### ***Claim Objections***

4. Claim 2 is objected to because of the following informalities:

As claim 2, line 5, the recitation "the destination terminal" should be changed to "the original destination terminal".

Appropriate correction is required.

*Claim Rejections - 35 USC § 112*

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As claim 1, lines 19, the recitation "the original destination" is vague and indefinite because it does not refer to any previous elements.

As claim 1, lines 20, the recitation "the repeater" is vague and indefinite because it does not refer to any previous elements.

As claim 7, lines 16, the recitation "the original destination terminal" is vague and indefinite because it does not refer to any previous elements.

As claim 13, lines 13, the recitation "the original destination" is vague and indefinite because it does not refer to any previous elements.

As claim 13, lines 13-14, the recitation "the predetermined distance" is vague and indefinite because it does not refer to any previous elements.

As claim 13, lines 14, the recitation "the repeater" is vague and indefinite because it does not refer to any previous elements.

There is insufficient antecedent basis for this limitation in the claim.

*Allowable Subject Matter*

7. Claims 1-14 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

8. The following is a statement of reasons for the indication of allowable subject matter:

Bertin (USP 4334303) discloses a regenerator for receiving and transmitting between the stations.

Fosmark (USP 6084881) discloses a multimode XDSL interface.

Hoff (USP 5978373) discloses a ADSL and Ethernet device for receiving ADSL signal and converting it into the Ethernet signals for transmitting to user device.

Saltzer (USP 4438520) discloses a regenerator for decoding and encoding the signals for retransmitted.

The prior arts fail to disclose a regenerator comprising a receiver for receiving XDSL signals transmitted on the twisted pair copper cable from either the central office or the end user; a decoder for decoding the payload of the received XDSL signal into base data; an encoder for repackaging and encoding the base data into a desired protocol format and line driver for retransmitting the encoded signal onto the twisted pair copper cable for distribution to the end user, wherein a predetermined distance for the location of the regenerator corresponds to a point on the twisted pair cable where the signal to noise ratio of a transmitted XDSL signal reached a threshold of minimum acceptable signal quality within a structure of the claims.

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*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (703) 308-8848. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Wellington can be reached on (703) 305-4366. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



Steven HD Nguyen  
Art Unit 2664  
October 19, 2001